

Title (en)

METHOD FOR EXTRACTING METHANE FROM COAL BEDS AND FROM PENETRATING ROCK ENCLOSING A COAL BED

Title (de)

VERFAHREN ZUR EXTRAKTION VON METHAN AUS KOHLENFLÖZ UND AUS DER DURCHDRINGUNG EINES GESTEINS UM EIN KOHLENFLÖZ

Title (fr)

PROCÉDÉ D'EXTRACTION DE MÉTHANE À PARTIR DE VEINE DE HOUILLE ET DE ROCHE PERMÉABLES COMPRENANT UNE VEINE DE HOUILLE

Publication

**EP 3115547 A2 20170111 (EN)**

Application

**EP 15758369 A 20150327**

Priority

- RU 2014108013 A 20140304
- RU 2015000188 W 20150327

Abstract (en)

A method for extracting methane from coal beds includes creating acoustic, electrical, mechanical and hydrodynamic compressive/tensile stresses by applying periodic short pulses generated via the explosion of a calibrated conductor located in the operating range of a well of a source of oscillations, the energy of which is fed to the coal bed. A slotted perforation is created in the well, said perforation being oriented along the directions of the main stresses in the coal bed, an additional slotted perforation is created in penetrating rock which encompasses the coal bed, and the additional slotted perforation is directed along the directions of the main stresses of the rock encompassing the coal bed, enhancing the acoustic and hydrodynamic cavitation of gas bubbles emitted from the coal, cracks, microcracks, pores, micropores, capillaries and microcapillaries of the coal bed, and also from the cracks and microcracks created in the penetrating rock encompassing the coal bed. The technical result of the proposed method consists in increasing coal methane production, in reducing energy consumption, and in increasing the safety and environmental-friendliness of the process.

IPC 8 full level

**E21B 43/12** (2006.01); **E21B 28/00** (2006.01); **E21B 43/263** (2006.01)

CPC (source: EP)

**E21B 43/006** (2013.01); **E21B 43/25** (2013.01); **E21B 43/263** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3115547 A2 20170111**; **EP 3115547 A4 20171206**; AU 2014203426 A1 20150924; AU 2015224617 A1 20160421; AU 2015224617 B2 20170810; CA 2928816 A1 20150911; CA 2928816 C 20180313; CN 104895543 A 20150909; CN 104895543 B 20180424; EA 033490 B1 20191031; EA 201650012 A1 20170531; HK 1210246 A1 20160415; RU 2554611 C1 20150627; WO 2015133938 A2 20150911; WO 2015133938 A3 20151105

DOCDB simple family (application)

**EP 15758369 A 20150327**; AU 2014203426 A 20140624; AU 2015224617 A 20150327; CA 2928816 A 20150327; CN 201410286161 A 20140624; EA 201650012 A 20150327; HK 15110766 A 20151030; RU 2014108013 A 20140304; RU 2015000188 W 20150327